

## 2016 TRIP

### 16 July 2016 (Saturday): Clayton/Glassboro Fish and Wildlife Management Area, Glassboro and Monroe Townships, Gloucester County, New Jersey

The Clayton/Glassboro Fish and Wildlife Management Area (WMA; Figure 1) is nearly 3,000 acres public of open space surrounding the headwaters of the Little Ease, one of the major tributaries forming the Maurice River. It straddles three Gloucester County municipalities: Clayton, Glassboro and Monroe. The property is colloquially known as "CC Woods", based on the short tenure of the federal government's Civilian Conservation Corps camps that existed here during the Great Depression (1933-1939). The land entered public domain during the 1940's and has been managed for wildlife for the past 70 years.

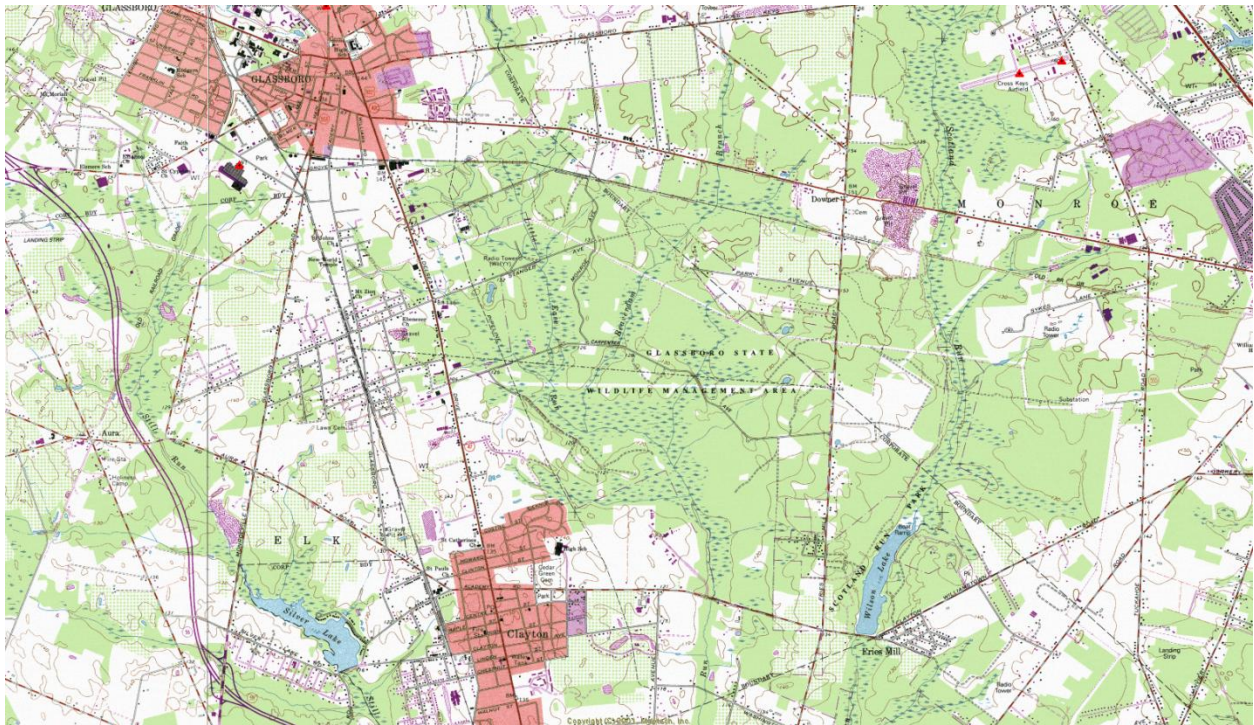


Figure 1: Pitman East, NJ USGS Topographic Quadrangle

The management area is situated on an interesting set of natural landscapes that have developed into a variety of native plant communities. The management area sits squarely on the Outer Coastal Plain Physiographic province, but not within the Pine Barrens ecosystem. It supports hardwood-dominated communities that are characteristic of the forests adapted to the Bridgeton Formation soils. While fire constitutes a major influence in shaping the forest community of the Pine Barrens, fire plays a far less significant role in the "CC Woods". Here, human clearing or natural storm disturbances create the mosaic, and the fine, loamy soil texture provides a mesic setting unlike xeric geological landscapes east of this location.

Upland forests are oak dominated. *Quercus alba*, *Q. velutina*, *Q. falcata*, *Q. rubra*, *Q. coccinea*, and *Q. montana* are canopy dominants where upland soils exist. *Pinus rigida*, *P. echinata* and *P. virginiana* are present and found throughout the forest. Their presence, however, reflects past non-fire disturbances that created pioneer habitats suitable for pine seed establishment. Other canopy species found within the upland forest includes *Carya tomentosa*, *C. glabra*, and *C. pallida*. Additional plots with a

disturbance history are occupied by *Prunus serotina*, *Sassafras albidum*, *Juniperus virginiana*, *Liriodendron tulipifera*, *Acer rubrum* and *Populus grandidentata*. Sub-canopy trees include *Cornus florida*, *Ilex opaca*, and *Amelanchier canadensis*. Understory vegetation supports a heath layer that is dominated by dense thickets of mountain laurel. Ground cover heaths include the typical suite of shrubs found throughout the Coastal Plain where acidic conditions persist: *Vaccinium pallidum*, *Gaylussaccia baccata* and *G. frondosa*. The latter is the most prominent shrub of the three, and constitutes the signature heath shrub in the Bridgeton Formation's upland forests.

Wetlands within the WMA are palustrine forests dominated by deciduous canopies of *Acer rubrum*, *Liquidambar styraciflua*, *Nyssa sylvatica*, and *Magnolia virginiana*. *Chamaecyparis thyoides* and *Pinus rigida* are present within the wetland forest. Spungs and cripples are local names of landscape features found within the Little Ease wetlands.

The field trip focused on the northeast side of the management area. The botanists in attendance (7) used a gas and electric power line right-of-way as points of access. The morning walk began on Fries Mill Road and proceeded west under a power line. The open habitat, bracketed by a surrounding oak forest, consumed a significant part of the trip. In the afternoon, the group worked the edge of Moore Avenue south to the same power line right of way. The land east of the roadway was botanized for about 100 meters before the trip ended due to excessive heat and a tired crew.

The power line's open habitat provided an long transect that was rich in Coastal Plain herbs. Here we saw a number of native upland grasses that included eleven *Dichanthelium* taxa, three upland *Danthonia* species, *Elymus virginicus*, *Panicum virgatum*, *Schizachryium scoparium*, and *Andropogon virginicus*. The group identified nine upland *Carex* species, four *Solidago* species and two *Lechea* species. An interesting find included both *Leersia virginica* and *L. oryzoides*, and our two creeping bush clovers, *Lespedeza repens* and *L. procumbens*. Except for *Desmodium paniculatum*, other common tick trefoil species were noticeably missing. The wetlands and lands in close proximity were likewise botanically productive yielding nine *Juncus* species, an additional seven *Carex* species, two *Xyris* species, and a number of southern New Jersey characteristic coastal plain grasses that included *Andropogon glomeratus*, *Calamagrostis cinnoides*, *Chasmanthium laxum* and *Panicum rigidulum v. pubescens*.

The open land under the power line also provided habitat for a few New Jersey Natural Heritage listed species: *Polygala polygama* (S2), *Polygala mariana* (S2), *Scleria pauciflora* (S2), and *Croton willdenowii* (S3).

Trip Leader: Joe Arsenault



July 17 2016 PBC Field Trip Species List  
Combined lists of pre-trip attended by Ted  
Gordon and Joe Arsenault; day of trip by Janet  
Novak, Bob Moyer, and Joe Arsenault

*Acer rubrum*  
*Agrostis scabra*  
*Ailanthus altissima*  
*Alisma triviale/subcordata*  
*Ambrosia artemisiifolia*  
*Ambrosia trifida*  
*Amelanchier canadensis* (?)  
*Andropogon glomeratus*  
*Andropogon virginicus*  
*Anthoxanthum odoratum*  
*Apios americanum*  
*Apocynum cannabinum*  
*Aralia nudicaulis*  
*Aronia arbutifolia*  
*Artemisia vulgaris*  
*Asclepia amplexicaulis*  
*Asclepias syriaca*  
*Aster/Symphotrichum "dumosa"*  
*Aster/Symphotrichum [nova-belgii]* TG & JA  
*Baptisia tinctorum*  
*Bartonia virginica*  
*Betula populifolia*  
*Bidens polylepis*  
*Boehmeria cylindrica*  
*Bromus inermis*  
*Callitriche heterophylla*  
*Callitriche terrestris* (S3)  
*Carex [atlantica]*, TG & JA  
*Carex atlantica v. capillare*  
*Carex albicans v emmonsii*  
*Carex bullata*  
*Carex [canescens]* TG & JA  
*Carex complanata*  
*Carex crinita*  
*Carex folicullata*  
*Carex grisea*  
*Carex intumescens*  
*Carex longii*  
*Carex lurida*  
*Carex nigromarginata*  
*Carex pensylvanica*  
*Carex scoparium*  
*Carex striata*

*Carex swanii*  
*Carex tribuloides*  
*Carex umbellata/tonsa*  
*Carex [venusta]* TG & JA  
*Carex vulpinoidea*  
*Carya glabra*  
*Carya tomentosa*  
*Centaurea maculosa/stoebe*  
*Cephalanthus occidentalis*  
*Chamaedaphne calyculata*  
*Chasmanthium laxum*  
*Chondrilla juncea*  
*Cichorium intybus*  
*Clethra alnifolia*  
*Conyza canadensis*  
*Comptonia peregrina*  
*Cornus florida*  
*Croton willdenowii* (S3)  
*Cuscuta sp.*  
*Dactylus glomerata*  
*Danthonia compressa*  
*Danthonia cericea*  
*Danthonia spicata*  
*Daucus carota*  
*Decodon verticillatus*  
*Dennstaedtia punctilobula*  
*Desmodium paniculatum*  
*Dianthus armeria*  
*Dichantherium [mattamuskeetense]* verified TG  
and JA  
*Dichantherium acuminatum v. fasciculatum*  
*Dichantherium acuminatum v. lindhiemeri*  
*Dichantherium acuminatum v. implicatum*  
*Dichantherium clandestinum*  
*Dichantherium commutatum v. asheii*  
*Dichantherium depauperatum*  
*Dichantherium dichotomum*  
*Dichantherium lucidulum*  
*Dichantherium microcarpon*  
*Dichantherium meridionale* (JRA June pre trip)  
*Dichantherium polyanthes*  
*Dichantherium ovata v. communsianum*  
*Dichantherium sphaerocarpon*  
*Dichantherium scoparium*  
*Diodea teres*  
*Dioscorea villosa*  
*Diospyros virginiana*  
*Drosera intermedia*

*Dulichium arundinaceum*  
*Elaeagnus umbellata*  
*Eleocharis (obtusata)?*  
*Eleocharis engelmannii (Bob)*  
*Eleocharis tenuis*  
*Eleocharis tuberculosa*  
*Eriocauline compressa*  
*Elymus virginicus var. jejunos*  
*Epigea repens*  
*Erigeron strigosus*  
*Eubotrys racemosa*  
*Eupatorium hyssopifolium*  
*Eupatorium pilosum*  
*Eupatorium rotundifolia*  
*Galium obtusum*  
*Galium tinctorium*  
*Gaultheria procumbens*  
*Gaylussacia baccata,*  
*Gaylussacia frondosa*  
*Geum canadensis*  
*Gnaphalium purpureum*  
*Helenium autumnalis*  
*Hieracium gronovii*  
*Hieracium pilosella*  
*Hypericum canadense*  
*Hypericum gentianoides*  
*Hypericum hypericoides*  
*Hypericum mutilum*  
*Hypericum punctatum*  
*Hypochaeris radicata*  
*Ilex opaca*  
*Ilex verticillata*  
*Itea virginica*  
*Juncus acuminatus*  
*Juncus bufonius*  
*Juncus canadensis*  
*Juncus debilis*  
*Juncus dichotomus*  
*Juncus effusus*  
*Juncus marginatus*  
*Juncus scirpoides*  
*Juncus tenuis*  
*Juniperus virginiana*  
*Jussiaea sp.*  
*Kalmia angustifolia*  
*Kalmia latifolia*  
*Krigia virginica*  
*Kummerowia stipulacea*

*Lechea minor*  
*Lechea racemulosa*  
*Leersia oryzoides*  
*Leersia virginica*  
*Lespedeza cuneata*  
*Lespedeza procumbens*  
*Lespedeza repens*  
*Lespedeza virginicum/intermedia*  
*Lilium superbum*  
*Linaria (Nuttallanthus) canadensis*  
*Lindernia dubia v. anagallidea*  
*Linum striatum*  
*Linum virginianum*  
*Liquidambar styraciflua*  
*Liriodendron tulipifera*  
*Lobelia inflata*  
*Lobelia nutallii,*  
*Lonicera japonica*  
*Lotus corniculatus*  
*Ludwigia alterniflora*  
*Luzula bulbosa*  
*Lycopus uniflora*  
*Lycopus virginicus*  
*Lyonia ligustrina*  
*Lysimachia quadrifolia*  
*Magnolia virginiana*  
*Medeola virginiana*  
*Melampyrum lineare*  
*Microstegium vimineum*  
*Mitchella repens*  
*Nymphaea odorata*  
*Nyssa sylvatica*  
*Onoclea sensibilis*  
*Orontium aquaticum*  
*Osmunda cinnamomea*  
*Oxalis stricta*  
*Paulownia tomentosum*  
*Panicum rigidulum v. pubescens*  
*Panicum virgatum, local /introduced phenotypes*  
*Parthenocissus quenquifolia*  
*Peltandra virginica*  
*Phleum pratense*  
*Pinus rigida*  
*Plantago aristida*  
*Plantago lanceolata*  
*Plantago major/rugelli?*  
*Polygala mariana S2*  
*Polygala nuttalli*

*Polygala polygama* S2  
*Polygonum arifolium*  
*Polygonum perfoliatum*  
*Polygonum hyropiperoides/punctatum?*  
*Polygonum caespitosum* v. *longistylum*  
*Polygonum sagittatum*  
*Pontedaria cordata*  
*Potentilla canadense*  
*Potentilla simplex*  
*Prunus serotina*  
*Pteridium aquilinum*  
*Pyrus calleryana*  
*Quercus falcata*  
*Quercus alba*  
*Quercus coccinea*  
*Quercus marlandica*  
*Quercus montana*  
*Quercus phellos*  
*Quercus rubra*  
*Quercus velutina*  
*Rhexia mariana*  
*Rhexia virginica*  
*Rhododendron viscosum*  
*Rhus/Toxioidendron radicans*  
*Rhynchospora capitellata*  
*Rosa multiflora*  
*Rubus cuneifolius*  
*Rubus flagellaris*  
*Rumex acetosella*  
*Sagittaria* sp. (*latifolia*)  
*Sambucus canadensis*  
*Sassafras albidum*  
*Schedonorus arundinaceus*  
*Schizachyrium scoparium*  
*Scirpus atrovirens/geogiensis*  
*Scirpus polyphyllus*  
*Scleria pauciflora* (S2)  
*Scleria triglomerata*  
*Scleria minor*  
*Scutellaria integrifolia*  
*Smilax glauca*  
*Smilax rotundifolia*  
*Solanum* sp.  
*Solidago puberula*  
*Solidago canadensis*  
*Solidago erecta*  
*Solidago nemoralis*  
*Solidago odora*

*Solidago rugosa*  
*Sparganium americanum*  
*Spirea tomentosa*  
*Strophostyles leiosperma*  
*Sisyrinchium atlanticum*  
*Sisyrinchium angustifolium*  
*Thelypteris palustris*  
*Thelypteris simulata*  
*Triadenum virginicum*  
*Trifolium arvense*  
*Tripsacum dactyloides*  
*Typha latifolia*  
*Utricularia striata*  
*Uvularia sessilifolia*  
*Vaccinium corymbosum*, s.l.  
*Vaccinium pallidum*  
*Viburnum dentatum*  
*Viburnum nudum*  
*Viburnum plicatum*  
*Viola lanceolata*  
*Viola primulifolia*  
*Viola triloba*  
*Vupia myurous*  
*Vulpia octoflora*  
*Woodwardia areaolata*  
*Woodwardia virginica*  
*Xyris difformis*  
*Xyris torta*

count: 216

263